Horizontal Fusion

"Catalyst for net-centric transformation"

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Net-Centric Transformation

WIDEBAND SATCOM

INFORMATION ASSURANCE

NCES

HORIZONTAL FUSION

GIG-BE

JTRS

What Does Horizontal Fusion Mean?

Horizontal Fusion is net-centric with (1) a focus on data - **cross functional** posting and use, **Ad Hoc access** to and fusion of data that is **created by operations processes** which are **integrated and federated** and (2) a focus on **making sense** of that data.

Federated Operations	Integrated Operations
Enterprise Value mostly derives from loosely coupled functional processes, some operating in a "just in time" manner. Cross functional contributions or contributions from multiple Comm enterprise value are substantial.	**Enterprise Value derives from processes that must be executed against tight timeli with high assurance. Processes may be eit functional or cross functional but generall execute within a well defined Community Of Interest (COI).**

Fusion	Interoperability
The merging of different elements into a union	"The ability of systems, units, or forces to exchange services and…operated effectively together." --Joint Publication 1-02

Horizontal Fusion Objectives

Proof of Concept with a twist:

Implement the GIG architecture ASAP!

- Computing power as far to the physical edge as possible
- Only handle the information once
- Real-time Collaboration
- TPPU – POST/Publish to the GIG. Populate the space with new and dynamic sources of information
- Everyone is a consumer and producer of information
- Bi-lateral sharing of intelligence and S&R data.
- Operational-Intelligence data interoperability
- Exploit diverse data sources with sense-making tools

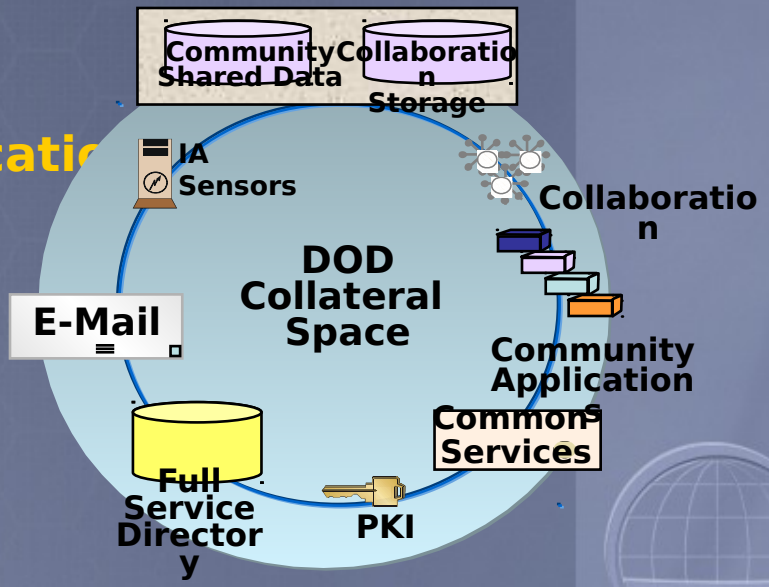
Operational leave behind capability

The HF Gameplan

- Build out the Collateral Space
  - ISP-like provider
  - Implement Standard Specifications
    - NCES
    - Data Mgt Strategy
- Continuously add data stores
- Implement “sense-making” applicatio
  - Complex pattern recognition
  - Large Data Set Visualization
  - User profiling
    - Subscription
    - Portal tailoring
    - Alerts

Common services

- Situational Awareness
- Sense-making
- Collaboration
- Discovery
- Mediation
- Posting/Delivery
- Resourcing/Indexing
- Security/User Identification & Verification
- Messaging/E-mail



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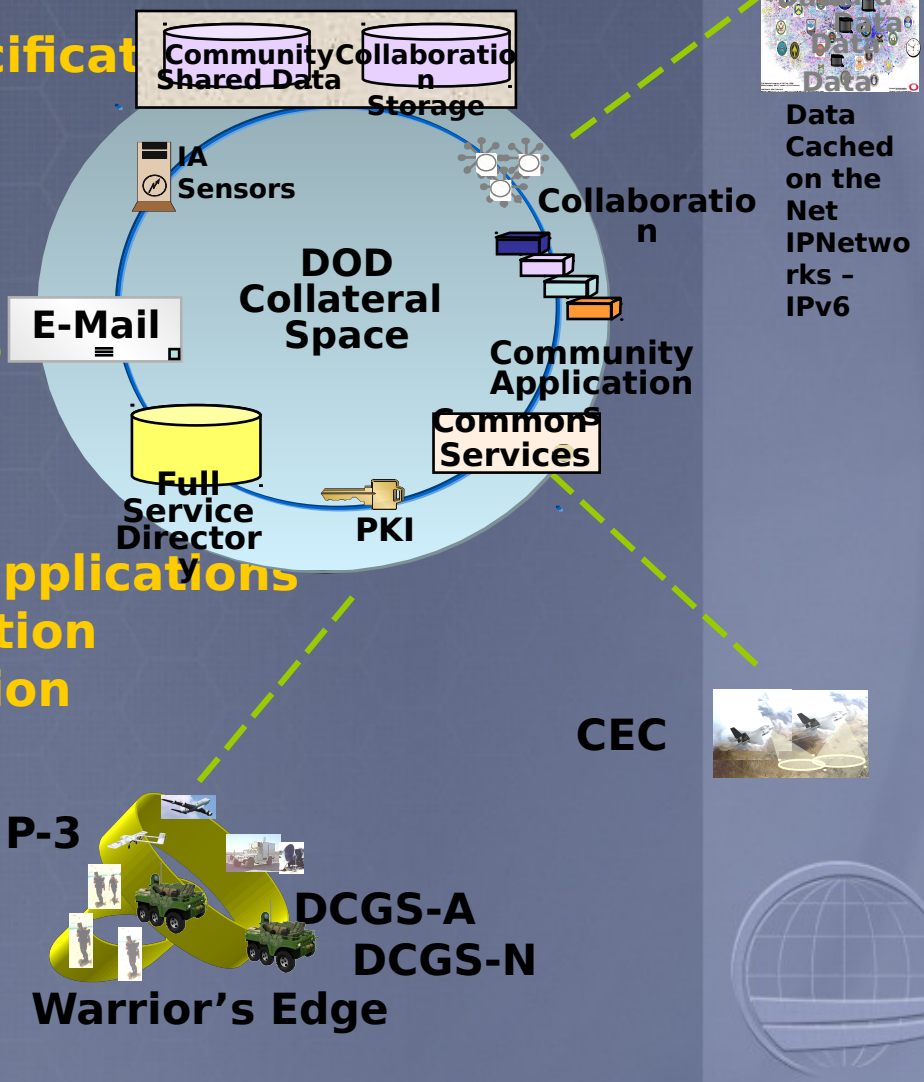

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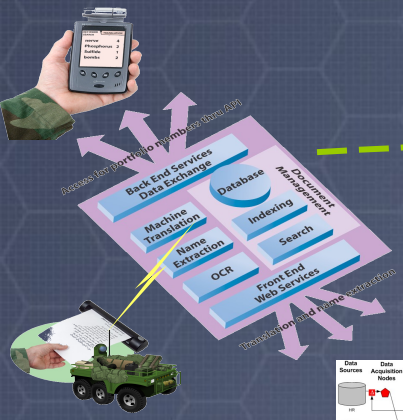

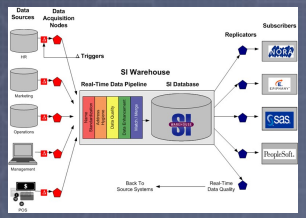

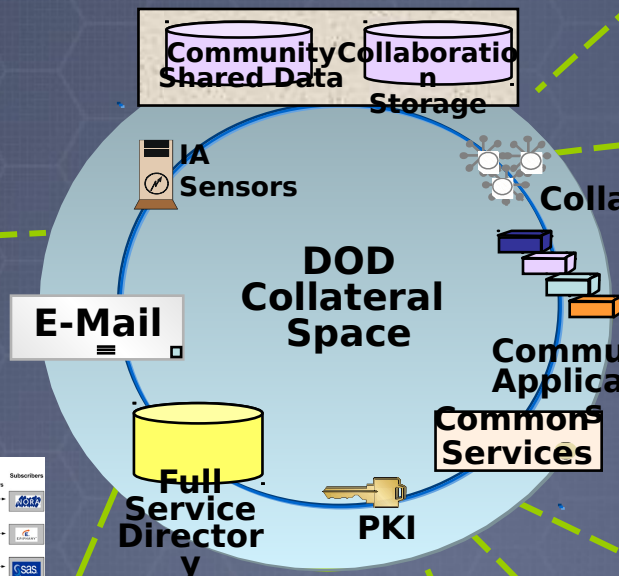

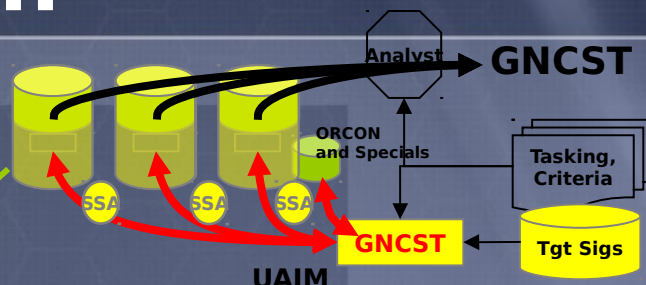

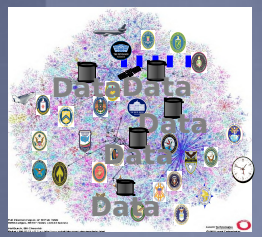

Data Cached on the Net
IP Networks – IPv6

- Implement "sense-making" applications
  - Complex pattern recognition
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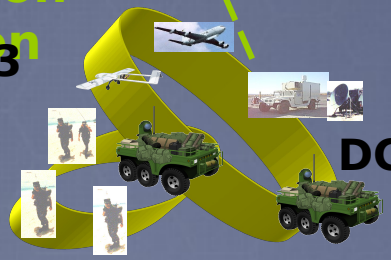
  - User profiling
    - Subscription
    - Portal tailoring
    - Alerts

CEC

NGIS



P-3

DCGS-A

DCGS-N

Warrior's Edge

Horizontal Fusion is managed as a PORTFOLIO

Portfolio Strategy

Identify high value initiatives

- **Criteria for selection: fit, impact balance**
- **Manage across material and non-material risk**
- **Manage across applicable Net-C objectives**
- **Govern objectively to achieve tangible outcomes**

Portfolio Approach

- **Research and Development effort Proof-of-Concept Demonstrations each August**
- **Make a shift from system to enterprise thinking in development**
- **Overcome traditional isolation, disconnects duplications and gaps among capabilities**

Portfolio Objectives

- **Provide operators on the edge with the applications and data access to effectively achieve situational awareness without latency**
- **Provide improved applications and access to collateral IS&R and other data to support intelligence analysts capabilities against difficult targets**

What Does Horizontal Fusion Provide the Department

- **Achieves rapid insertion of Net-Centricity across the Department**
- **Provides seed money to literally leap-frog Net-Centricity capability right into operational baseline**
- **Leverages legacy investmen while influencing future investments**
  - **Modify or amplify (vs. replace) existing programs or processes**

CATALYST FOR NET-CENTRIC TRANSFORMATION

27 August 03 Demonstration

QUANTUM LEAP-1 (QL-1)

An annual demonstration of the current state of implementation of net-centric warfighting and operations addressing:

Technology
Policy
Culture

DISA
Washington, DC

SPAWAR
Charleston, SC

Fort Benning
Georgia

QL-2 scheduled for 11 August 2004

Quantum Leap – 1 After Action Report/ FY04 direct

- Net-Centric Warfighting and Operations is DOABL

- Security and security policy
  - certification and accreditation process
  - PKI – DoD vs. IC
  - Information protection – internal and external
  - coalition and allies

04: Cross-domain information sharing

- Bandwidth, Bandwidth, Bandwidth!!!!!!!!

04: GIG BE must be implemented Secure Wireless communicati

- C4ISR Architecture Framework
  - Current approach inconsistent with NC Operations (ie., SV-6)

04: Recommend modifications to managing office

- Standards and CM
  - a fine line between Saturday night and Sunday morning
  - Private Industry state of the practice and DoD strategy and instruction

04: Continue to refine and evolve h we draw the line between creativity and discipline

- Tactics, Techniques, and Procedures
  - Train as you fight
  - Information as an asset

04: Engage JFCOM and training and doctrine organizations